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COMMENTARY

Community pharmacies for detection and control of hypertension

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The Health Survey for England shows us that 37% of the adult population are hypertensive (>140/90 mm Hg or on treatment for hypertension).[1] Just over a quarter of these people are on antihypertensive therapy, and of these, only 28% have their blood pressure controlled at less than 140/90 mm Hg. Thus, the old 'rule of halves' has become a 'rule of quarters' if contemporary guidelines on blood pressure control are followed.[2,3] Similarly poor adherence to blood pressure targets has been shown in equivalent studies in the US.[4]

There are many potential reasons for this poor control. Hypertension is largely asymptomatic with little biological feedback to patients in terms of blood pressure control.[5] Treatment is generally lifelong and may be associated with dose-related side effects. Around half of hypertensive patients discontinue new prescriptions for antihypertensive drugs in the first 6 months.[6]

It is not simply a question of motivating patients. Research in UK general practice has shown a lack of professional action in the presence of high recorded blood pressures along with a reluctance to prescribe for isolated systolic hypertension.[7] This is despite good evidence that the absolute benefit of treatment of isolated systolic hypertension is greater than for mild–moderate hypertension in middle-aged patients.[8] Fear of causing side effects may be the reason for this inaction although modern treatment trials have shown relatively modest levels of side effects.[9]

Workload in primary care has been cited as another reason for poor performance and as a barrier to further change. It has been estimated that each GP has around 272 adult patients on his or her list that require treatment according to the BHS guidelines.[10] Hypertension may not be a priority for GPs as they attempt to cope with increasing demand for appointments and pressure to reduce waiting times.[11]

Therefore, the answer is not to expect current services to stretch further, but rather, to explore novel methods for the detection and management of high blood pressure. Methods that have been tried include: public health screening 'fairs' in housing blocks and shopping centres, work-place screening, case finding in other primary care settings, such as opticians and dental surgeries, and self-monitoring of blood pressure.[12]

Unfortunately, evidence for the effectiveness of any of these approaches is weak.[12] Another approach of potential promise that is explored by Earle *et al*[13] in this issue of *Journal of Human Hypertension* is making use of community pharmacies.

Community pharmacies are often sited alongside surgeries and are a largely untapped resource for improved patient care. Studies in the US have shown that pharmacist involvement in the management of chronic diseases such as hypertension can be effective.[14] In 1981, a study in nine pharmacies in Birmingham showed that screening for high blood pressure was feasible although only 215 patients availed themselves of the service in a 5-month period.[15] Referrals to primary care for consideration of treatment were low (10/215, 5%) although this was largely due to the high thresholds used (eg, <160/110 was considered normotensive for the over 60s). A questionnaire to participants showed high levels of support for the service. In 1990 a study from Nottingham examined the provision of free blood pressure checks to middle-aged patients attending an inner city pharmacy over a period of 6 weeks. Few of the readings appeared to have been relayed to their general practitioner and the GPs involved were generally unenthusiastic.[16] Little progress has been made in the 10 years that have

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elapsed, perhaps due to a lack of funding for this type of venture. Unified budgets at the level of Primary Care Trusts may provide greater impetus for such schemes.

Earle *et al*[13] looked at the feasibility of offering blood pressure measurement in six pharmacies in North London. Volunteers were recruited via advertisements in local media and the pharmacies themselves and had blood pressure measured using validated automated electronic sphygmomanometers. Measurements were accompanied by a personalised management plan produced centrally using decision support software. A total of 263 patients used the service over 16 weeks and it appears to have been safe in that all those advised to attend their GPs with uncontrolled blood pressure did. Patients from ethnic minorities were as likely to register for the scheme as white subjects although the numbers involved were small. Perhaps not surprisingly, the service appears to have been used preferentially by those with pre-existing hypertension who presumably were more likely to see the service advertised during routine visits to collect medication.

Having demonstrated feasibility, further work is now required to ascertain the effect on outcome of this type of scheme. The algorithm used will require modification to allow appropriate action in terms of medication adjustment in response to pressures over target in known hypertensives. The advent of the universal electronic patient record (if it ever arrives) would allow the possibility of automatic insertion of blood pressure readings from multiple sources into patient notes.

Does the public want more involvement in its own care? Evidence is accumulating that it does.[17] A study looking at thresholds for starting treatment for hypertension showed that members of the general public considered initiation of treatment to be appropriate at lower levels of risk than either GPs or hospital physicians.[18] Providing people with the means to monitor their own pressures, such as through open-access to sphygmomanometers in community pharmacies, is one way in which greater involvement could be achieved.

If the new 'rule of quarters' is to be tackled, approaches such as that described by Earle *et al*[13] need to be considered. Responsibility for control of blood pressure can be shared amongst community-based health care professionals, and the potential for giving patients a more central role explored. There have been major advances in the evidence base for the treatment of hypertension in the last decade. Implementation (and research on implementation) is now the priority.

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